WILDLIFE MANAGEMENT AND RESEARCH NOTES

No.		DATE
912	**AUTHOR:** Lance B. McNew, Wildlife Consultant	3/10/06
	TITLE: 2005 Deer Biological Check Station Analysis	

Abstract: During the 2005 deer-hunting season, division personnel examined 5,073 deer (4% of the total statewide harvest) to assess sex and age-structure. Yearling deer represented 50% of the adult male harvest and 42% of the female harvest. The percentage of 1.5 year old males in the adult male harvest has averaged 57% over the last 10 years, and has remained stable over the last 4 years.

During the 2005 deer season, division personnel aged and sexed 5,073 deer at 62 stations statewide, which represents 4% of the total statewide harvest and a 15 percent decrease in the number of deer aged as compared to 2004. Table 1 shows the sex and age structure for all deer examined at the biological check stations. Yearling deer represented 50% of the adult male harvest (statewide statistic); no change from the same statistic in 2004. In the 2005 harvest, yearlings comprised 42% of the adult female harvest, which represented a 5 percentage point increase over last year (Table 2). Among adult males in the sample, 15% were estimated to be $\geq$3.5 years old. Twenty-five percent of adult females were $\geq$3.5 years old; a 3 percentage point decrease from 2004 (Table 2). The proportion of 2.5 year-old males in the adult harvest was similar to last year's; the corresponding female statistic showed a slight decrease over last year.

The percent of 1.5 year-old males in the adult male harvest can provide insight into and a measure of the effects of past antlerless harvests on current herd recruitment. This value, as a measure of a change in demographics, can also give indications of large increases in harvest pressure in a given area. However, its ability to accurately monitor population trends was likely affected by the implementation of the One Buck Rule (OBR) in 2002. Table 3 shows the percent of 1.5 year-old males in the adult male harvest as calculated from individual county values (where sample size criteria was met) in the 1995-2005 statewide samples. The 2005 value (52.1%; 95% C.I. = 48.7-55.6) was similar to that of 2004 (50.5%; 95% C.I. = 47.8-53.2) and less than the previous 10-year average (58.3%; 95% C.I. = 54.3-62.4).

Table 1. Sex and age distribution of deer examined at biological check stations during 2005.

	Age Class				
Sex	0.5	1.5	2.5	3.5	4.5+
Female	389	458	364	177	94
Male	510	1,540	1,071	401	69
Total	899	1,998	1,435	578	163

Table 2. Proportional distribution of harvested adult age-classes in Indiana, 2000-05. (Percentages might not add to 100 due to rounding.

		% of Adult Harvest in Age Class			
Sex	Year	1.5	2.5	3.5	4.5+
Female	2000	39	35	16	9
	2001	40	35	16	8
	2002	40	35	16	9
	2003	40	36	15	8
	2004	37	36	17	11
	2005	42	33	16	9
Male	2000	62	27	9	1
	2001	56	31	12	2
	2002	53	33	12	2
	2003	54	30	14	2
	2004	50	35	13	2
	2005	50	35	13	2

Table 3. Percent of adult males harvested that were yearlings in the 1995-2005 statewide biological check-station samples.

Year	N*	Mean	Median	SE Mean
1995	44	62.6	62.4	1.5
1996	55	64.2	64.4	1.5
1997	44	56.5	58.8	1.6
1998	64	61.3	61.5	1.6
1999	52	64.1	64.8	1.5
2000	48	63.4	64.0	1.2
2001	43	58.5	56.8	1.7
2002	52	52.9	54.1	1.3
2003	43	49.4	49.3	1.5
2004	39	50.5	48.0	1.4
2005	35	52.1	50.0	1.7
Prior Year Averages	49	58.3	58.4	1.5

*Sample size based on the number of counties in which $\geq$20 deer were estimated to be 1.5 years old